UNITED STATES ENVIRONMENTAL PROTECTION AGENCY • REGION IX
75 Hawthorne Street • San Francisco, CA 94105

March 2017

Rainbow Montessori Child Development Center
Sunnyvale, California

Dear Parents and Staff:

We are sending this letter to update you on the ongoing trichloroethene (TCE) indoor air testing and mitigation activities that are being conducted by the U.S. Environmental Protection Agency (EPA) at your school. This work is associated with the long-term groundwater cleanup in the neighborhood. As we have informed you in our previous letters, EPA has overseen a number of activities at the school to ensure that there is no current unacceptable exposure to vapor intrusion. Indoor air testing in classrooms has been ongoing and modifications and repairs were made to air conditioning/heating systems to assure that staff and students are protected.

Over the next few months EPA will oversee the installation of TCE vapor intrusion "mitigation systems" underneath each of the five school buildings on campus. We expect that each system will take one to two days to install, and the construction work will take place over five weekends (one weekend for each of the five school buildings). We have already successfully installed more than 10 similar systems in other school buildings and residences in the neighborhood, and these systems will be a permanent solution to protect students and staff from any TCE vapors that may rise up from the contaminated groundwater.

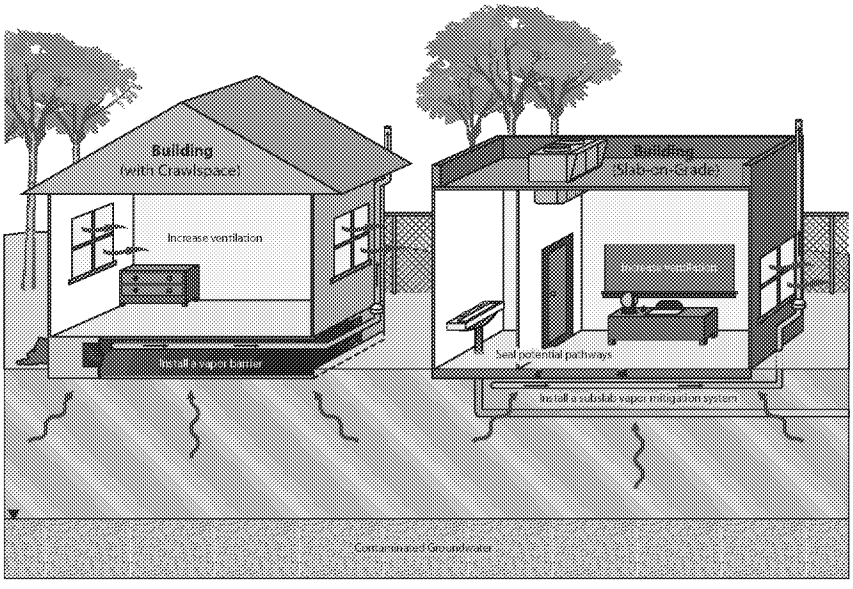


Figure 1: *Generic Vapor Intrusion Mitigation System Design*

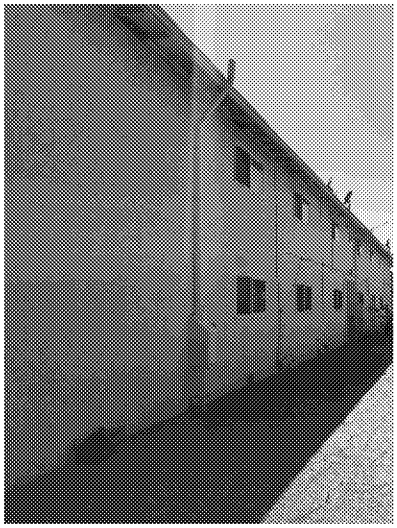
About the Mitigation System

The mitigation systems planned for the Rainbow Montessori buildings are similar to those systems installed elsewhere in the neighborhood and use the newest technology to prevent TCE vapors from entering the school buildings. The systems are called "sub-membrane depressurization systems" and will be installed below the foundation of each building and operate continuously 24 hours per day/7 days per week. A quiet fan will mechanically draw vapors underneath the foundation and send them to a vertical riser pipe installed at the rear of each building. Vapors traveling up the riser pipe will be vented to the atmosphere above the roofline of the building.

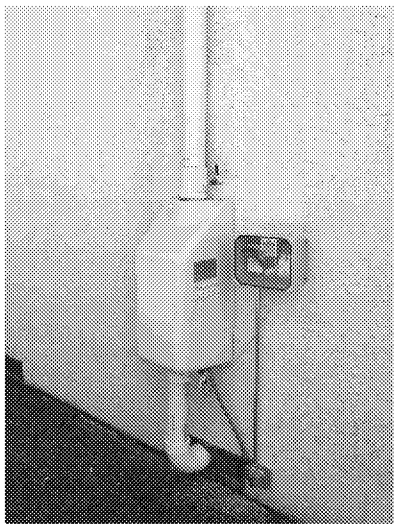
Follow-up Sampling and Inspections

Similar to EPA's approach with the other school and residential mitigation systems, periodic air sampling and system inspections will be performed to confirm that the systems are working correctly. The mitigation systems will also have remote communications capabilities to monitor the systems continuously and send an automatic alarm to technicians in the event that there is a system failure (for example, due to a power outage).

On the right are pictures of the visible parts of the mitigation system – the other components will be installed below the building foundation.



Riser pipe and fan (inside the box)



Fan (inside the box), alarm, and ON/OFF switch near ground.

TCE and Vapor Intrusion

The main chemical of concern in this area of Sunnyvale is TCE. TCE can move as a vapor from groundwater up through soil under certain conditions. If vapors move under a building, it is possible for them to pass through cracks and other openings in the foundation and enter the indoor air. If this happens, and if the levels are high enough and prolonged enough, it may create a health risk.

Note: *Your drinking water is not affected by this contamination. Drinking water in this area of Sunnyvale comes from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains and meets all state and federal drinking water standards.*

Contact For More Information

Please do not hesitate to contact me at (415) 972 – 3050 or by e-mail to morash.melanie@epa.gov if you have any questions. You may also contact EPA's Community Involvement Coordinator, Alejandro Diaz (fluent in Spanish), at (415) 972 – 3242 or by e-mail to *diaz.alejandro@epa.gov*.

Sincerely,

Melanie Morash

Melanie Morash, EPA Project Manager